RADIO FREQUENCY LINK PERFORMANCE TOOL PROCESS AND SYSTEM

ABSTRACT

A system and method for optimizing transmission of radio frequency communication link signals in a radio frequency communications network comprises determining a statistical difference between a mean radio frequency communication link propagation loss value based on a set of measured radio frequency communication link propagation loss values, and a radio frequency communication link propagation loss model value; calculating a signal to noise ratio of a radio frequency communication link signal; computing a confidence interval based on a measured signal to noise threshold ratio of a measured radio frequency communication link signal, and a standard deviation associated with the calculated signal to noise ratio; assigning a probability value based on the confidence interval; and generating a radio frequency communication link packet completion rate performance level based on the probability value. The transmission of radio frequency communication link signals occurs in either jamming or no jamming situations.